



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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AUG 28 2001  
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AUG 27 2001

In re application of:

Shen *et al.*

Appl. No. 09/845,153

Filed: May 1, 2001

For: **Methods and Compositions for  
Lipidization of Hydrophilic  
Molecules**

Art Unit: 1646

Examiner: *To be assigned*

Atty. Docket: 1696.0020008/RWE/BEC

**TC 1700**

### Information Disclosure Statement

Commissioner for Patents  
Washington, D.C. 20231

Sir:

Listed on accompanying Form PTO-1449 are documents that may be considered material to the examination of this application, in compliance with the duty of disclosure requirements of 37 C.F.R. §§ 1.56, 1.97 and 1.98. A copy of each of these documents is provided.

In accordance with 37 C.F.R. § 1.98(a)(3), Applicants' undersigned representative submits the following, in regards to non-English language documents AL1 and AR17 cited on Form PTO 1449:

Document AL1, a Japanese patent, is in a foreign language. No English translation is readily available. Document AR19 is provided as an English language abstract. Document AL1 appears to show 3-nitro-2-pyridyl-sulphenyl-L-cysteine.

Document AR17, a Japanese journal article, is in a foreign language. No English translation is readily available. Document AS17 is provided as an English language abstract. Document AR17 appears to show  $\gamma$ -glutamylcysteine- $\gamma$ -glutamylcysteine disulfide and the

mixed disulfides: glutathione-cysteine, glutathione-3-mercaptolactate, glutathione- $\gamma$ -glutamylcysteine, and  $\gamma$ -glutamylcysteine-cysteine.

Where the publication date of a listed document does not provide a month of publication, the year of publication of the listed document is sufficiently earlier than the effective U.S. filing date and any foreign priority date so that the month of publication is not in issue. Applicants have listed publication dates on the attached PTO-1449 based on information presently available to the undersigned. However, the listed publication dates should not be construed as an admission that the information was actually published on the date indicated.

Applicants reserve the right to establish the patentability of the claimed invention over any of the information provided herewith, and/or to prove that this information may not be prior art, and/or to prove that this information may not be enabling for the teachings purportedly offered.

This statement should not be construed as a representation that a search has been made, or that information more material to the examination of the present patent application does not exist. The Examiner is specifically requested not to rely solely on the material submitted herewith.

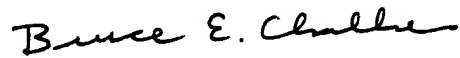
This Information Disclosure Statement is being filed before the mailing date of a first Office Action on the merits. No statement or fee is required.

It is respectfully requested that the Examiner initial and return a copy of the enclosed PTO-1449, and indicate in the official file wrapper of this patent application that the documents have been considered.

The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036. A duplicate copy of this pleading is enclosed.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.



Bruce E. Chalker  
Agent for Applicants  
Registration No. 47,480

Date: August 23, 2001

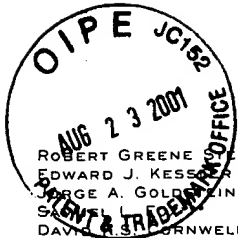
1100 New York Avenue, N.W.  
Suite 600  
Washington, D.C. 20005-3934  
(202) 371-2600

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.

ATTORNEYS AT LAW

1100 NEW YORK AVENUE, N.W. • WASHINGTON, D.C. 20005-3934

PHONE: (202) 371-2600 • FACSIMILE: (202) 371-2540 • www.skgf.com



ROBERT GREENE STERNE  
EDWARD J. KESSLER  
JEROME A. GOLDSTEIN  
DAVID S. FOX  
ROBERT W. SWINDELL  
TRACY-GENE G. DURKIN  
MICHELE A. CIMBALA  
MICHAEL B. RAY  
ROBERT E. SOKOHL  
ERIC K. STEFFE  
MICHAEL O. LEE  
STEVEN R. LUDWIG

JOHN M. COVERT  
LINDA E. ALCORN  
ROBERT C. MILLONIG  
MICHAEL V. MESSINGER  
JUDITH U. KIM  
TIMOTHY J. SHEA, JR.  
PATRICK E. GARRETT  
JEFFREY T. HELVEY\*  
HEIDI L. KRAUS  
JEFFREY R. KURIN  
PATRICK D. O'BRIEN  
LAWRENCE B. BUGAISKY  
CRYSTAL D. SAYLES

EDWARD W. YEE  
ALBERT L. FERRO\*  
DONALD R. BANOWIT  
PETER A. JACKMAN  
MOLLY A. MCCALL  
TERESA U. MEDLER  
JEFFREY S. WEAVER  
KENDRICK P. PATTERSON  
DONALD J. FEATHERSTONE  
VINCENT L. CAPUANO  
JOHN A. HARROUN\*  
ALBERT J. FASULO II\*  
ELDOORA ELLISON FLOYD\*

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MATTHEW J. DOWD\*\*  
TIMOTHY M. SPEER\*\*  
AARON L. SCHWARTZ\*\*

\*LIMITED TO MATTERS  
AND PROCEEDINGS BEFORE  
FEDERAL COURTS & AGENCIES  
\*\*REGISTERED PATENT AGENT  
\*\*\*SENIOR COUNSEL

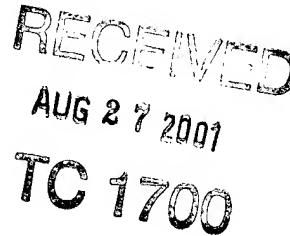
WRITER'S DIRECT NUMBER:

(202) 371-2630

INTERNET ADDRESS:

bchalker@skgf.com

August 23, 2001



Commissioner for Patents  
Washington, D.C. 20231

Re: U.S. Utility Patent Application  
Appl. No. 09/845,153; filed May 1, 2001  
For: **Methods and Compositions for Lipidization of Hydrophilic Molecules**  
Inventors: Shen *et al.*  
Our Ref: 1696.0020008/RWE/BEC

Sir:

Transmitted herewith for appropriate action are the following documents:

1. Information Disclosure Statement (in duplicate);
2. Form PTO-1449 (22 sheets) and accompanying (74) references; and
3. Return postcard.

It is respectfully requested that the attached postcard be stamped with the date of filing of these documents, and that it be returned to our courier. In the event that extensions of time are necessary to prevent abandonment of this patent application, then such extensions of time are hereby petitioned.

Commissioner for Patents

August 23, 2001

Page 2

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TC 1700

The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036. A duplicate copy of this letter is enclosed.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.

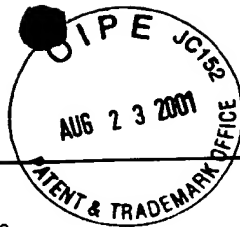
*Bruce E. Chalker*

Bruce E. Chalker  
Agent for Applicants  
Registration No. 47,480

BEC/dab

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Enclosures



FORM PTO-1449 <u>INFORMATION DISCLOSURE STATEMENT</u>	ATTY. DOCKET NO. 1696.0020008/RWE/BEC	APPLICATION NO. 09/845,153
	APPLICANTS Shen et al.	
	FILING DATE May 1, 2001	GROUP 1646

AUG 27 2001  
TC 1700

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA1	5,599,903	02/04/1997	Kauvar et al.	530	331	09/24/1993
	AB1	5,629,020	05/13/1997	Leone-Bay et al.	424	489	04/22/1994
	AC1	5,635,380	06/03/1997	Naftilan et al.	435	172.3	01/18/1994
	AD1	5,679,643	10/21/1997	Kauvar et al.	514	18	05/31/1994
	AE1	5,708,146	01/13/1998	Willner et al.	530	387.3	06/06/1995
	AF1	5,763,570	06/09/1998	Kauvar et al.	530	331	06/07/1995
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FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AL1	JP 63246382	10/13/1988	Japan			Abstract Yes No
	AM1	WO 91/16067	10/31/1991	WIPO			Yes No
	AN1	EP 0 482 766	04/29/1992	Europe			Yes No
	AO1	WO 96/22773	08/01/1996	WIPO			Yes No
	AP						Yes No

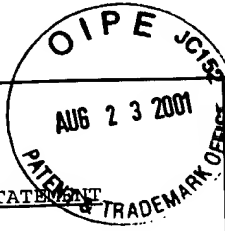
OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

AR	1	Artursson, P., and Magnusson, C., "Epithelial Transport of Drugs in Cell Culture. II: Effect of Extracellular Calcium Concentration on the Paracellular Transport of Drugs of Different Lipophilicities across Monolayers of Intestinal Epithelial (Caco-2) Cells," <i>J. Pharm. Sci.</i> 79:595-600, American Pharmaceutical Association (1990).
AS	1	Broadwell, R.D., et al., "Transcytotic pathway for blood-borne protein through the blood-brain barrier," <i>Proc. Natl. Acad. Sci. USA</i> 85:632-636, National Academy of Sciences (1988).
AT	1	Brocklehurst, K., et al., "Preparation of Fully Active Papain From Dried Papaya Latex," <i>Biochem. J.</i> 133:573-584, London Portland Press On Behalf Of The Biochemical Society (1973).

EXAMINER	DATE CONSIDERED
EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.	

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FORM PTO-1449

INFORMATION DISCLOSURE STATEMENT

ATTY. DOCKET NO.

1696.0020008/RWE/BEC

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APPLICATION NO.

09/845,153

APPLICANTS

Shen et al.

FILING DATE

May 1, 2001

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1546

## U.S. PATENT DOCUMENTS

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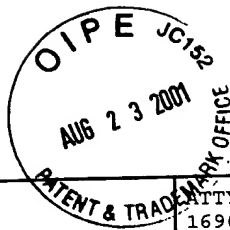
## FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION
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	AL						Yes No
	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

## OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

AR	<u>2</u>	Chekhonin, V.P., et al., "Fatty acid acylated Fab-fragments of antibodies to neurospecific proteins as carriers for neuroleptic targeted delivery in brain," <i>FEBS Letters</i> 287:149-152, Elsevier Science Publishers B.V. (1991).	
AS	<u>2</u>	Chu, Y.-C., et al., "High-Potency Hybrid Compounds Related to Insulin and Amphioxus Insulin-like Peptide," <i>Biochem.</i> 33:13087-13092, American Chemical Society (1994).	
AT	<u>2</u>	Chu, Y.-C., et al., "High-Potency Hybrid Compounds Related to Insulin and Amphioxus Insulin-like Peptide," <i>Chem. Abstracts</i> 121:212, Abstract No. 246582y, American Chemical Society (November 1994).	
EXAMINER			DATE CONSIDERED

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FORM PTO-1449

INFORMATION DISCLOSURE STATEMENT

ATTY. DOCKET NO.  
1696.0020008/RWE/BEC

APPLICATION NO.  
09/845,153

APPLICANTS  
Shen et al.

AUG 27 2001

FILING DATE  
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**U.S. PATENT DOCUMENTS**

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	AL						Yes No
	AM						Yes No
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**OTHER (Including Author, Title, Date, Pertinent Pages, etc.)**

OTHER (Including Author, Title, Date, Pertinent Pages, Etc.,			
	AR	<u>3</u>	Conradi, R.A., et al., "The Influence of Peptide Structure on Transport Across Caco-2 Cells," <i>Pharm. Res.</i> 8:1453-1460, Plenum Publishing Corp. (1991).
	AS	<u>3</u>	Edwards, P.A.W., "Is Mucus a Selective Barrier to Macromolecules?" <i>British Med. Bulletin</i> 34:55-56, British Council, Medical Dept. (1978).
	AT	<u>3</u>	Ekrami, H.M., "Positively-charged and lipophilic Bowman-Birk Protease Inhibitor conjugates: Synthesis and Characterization of the Pharmaceutical and Chemopreventive properties," A Dissertation, UMI Dissertation Services, Ann Arbor, MI, i-xiii, 9-226 (after January 25, 1995)
EXAMINER			DATE CONSIDERED

**EXAMINER:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.





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FORM PTO-1449 INFORMATION DISCLOSURE STATEMENT	INVENTOR DOCKET NO. 1696.0020008/RWE/BEC	APPLICATION NO. 09/845,153
	APPLICANTS Shen et al.	
	FILING DATE May 1, 2001	AUG 28 2001
	GROUP 1646	

## U.S. PATENT DOCUMENTS

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EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE
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	AL						Yes No
	AM						Yes No
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	AP						Yes No

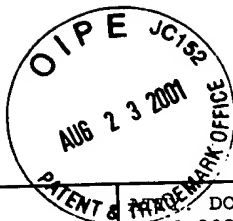
## OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

AR	4	Ekrami, H.M., et al., "Water-soluble fatty acid derivatives as acylating agents for reversible lipidization of polypeptides," <i>FEBS Letters</i> 371:283-286, Federation of European Biochemical Societies (1995).
AS	4	Ekrami, H.M., et al., "Water-soluble fatty acid derivatives as acylating agents for reversible lipidization of polypeptide," <i>Chem. Abstracts</i> 124:1042, Abstract No. 30361q, American Chemical Society (1996).
AT	4	Eriksson, S.A., and Mannervik, B., "A method for the direct recording of an enzyme-catalyzed thiol-disulfide interchange using mixed disulfide of glutathione and 3-carboxy-4-nitrobenzenethiol," <i>Biochim. Biophys. Acta</i> 212:518-520, Elsevier Publishing Co. (1970).

EXAMINER

DATE CONSIDERED

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Page 5 of 22

FORM PTO-1449

INFORMATION DISCLOSURE STATEMENT

DOCKET NO.  
1696.0020008/RWE/BEC

APPLICATION NO.  
09/845,113

APPLICANTS  
Shen et al.

FILING DATE  
May 1, 2001

AUG 27 2001  
GROUP  
1646

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE
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	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	AR	<u>5</u>	Eriksson, S. and Mannervik, B., "Direct recording of an enzyme-catalyzed thiol-disulfide interchange using a mixed disulfide of glutathione and 3-carboxy-4-nitrobenzenethiol," <i>Chem. Abstracts</i> 73:39, Abstract No. 127175y, American Chemical Society (1970)
	AS	<u>5</u>	Fix, J.A., et al., "Acylcarnitines: drug absorption-enhancing agents in the gastrointestinal tract," <i>Am. J. Physiol.</i> 251:G332-G340, American Physiological Society (1986).
	AT	<u>5</u>	Friden, P.M., and Walus, L.R., "Transport Of Proteins Across the Blood-Brain Barrier via the Transferrin Receptor," In: <i>Frontiers In Cerebral Vascular Biology, Transport and Its Regulation</i> , L.R. Drewes and A.L. Betz, eds. Plenum Press New York, New York, USA. pp.129-136 (1993).

DATE CONSIDERED

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FORM PTO-1449

## INFORMATION DISCLOSURE STATEMENT

 ATTORNEY, DOCKET NO.  
 1696.0020008/RWE/BEC

APPLICATION NO.

1696.0020008/RWE/BEC

 APPLICANTS  
 Shen et al.

 FILING DATE  
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 1646

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## U.S. PATENT DOCUMENTS

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	AL						Yes No
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	AN						Yes No
	AO						Yes No
	AP						Yes No

## OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

AR	<u>6</u>	Gonzalez-Mariscal, L., et al., "Tight Junction Formation in Cultured Epithelial Cells (MDCK)," <i>J. Membrane Biol.</i> 86:113-125, Springer-Verlag (1985).
AS	<u>6</u>	Gordon, G.S., et al., "Nasal absorption of insulin: Enhancement by hydrophobic bile salts," <i>Proc. Natl. Acad. Sci. USA</i> 82:7419-7423, National Academy of Sciences (1985).
AT	<u>6</u>	Hashimoto, M., et al., "Synthesis of Palmitoyl Derivatives of Insulin and Their Biological Activities," <i>Pharm. Res.</i> 6:171-176 Plenum Press (1989).

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Page 1 of 22

FORM PTO-1449

INFORMATION DISCLOSURE STATEMENTATTY. DOCKET NO.  
1696.0020008/RWE/BECAPPLICATION NO.  
00/17253APPLICANTS  
Shen et al.FILING DATE  
May 1, 2001GROUP  
1646

## U.S. PATENT DOCUMENTS

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	AL						Yes No
	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

## OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	AR	2	Huang, W., et al., "Lipophilic Multiple Antigen Peptide System for Peptide Immunogen and Synthetic Vaccine," <i>Mol. Immunol.</i> 31:1191-1199, Elsevier Science Ltd. (1994).
	AS	2	Hughes, R.A., et al., "Lipidic Peptides. III: Lipidic Amino Acid and Oligomer Conjugates of Morphine," <i>J. Pharm. Sci.</i> 80:1103-1105, American Pharmaceutical Association (1991).
	AT	2	Hughes, R.A., et al., "Lipidic Peptides. V: Penicillin and Cephalosporin Acid Conjugates with Increased Lipophilic Character," <i>J. Pharm. Sci.</i> 81:845-848, American Pharmaceutical Association (1992).

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FORM PTO-1449

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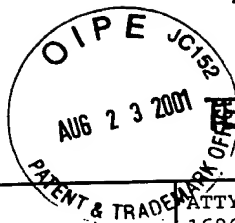
## OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	AR	8	Inagaki, M., et al., "Macromolecular permeability of the tight junction of the human nasal mucosa," <i>Rhinology</i> 23:213-221, International Rhinologic Society (1985).
	AS	8	Kabanov, A.V., et al., "Lipid modification of proteins and their membrane transport," <i>Protein Engineering</i> 3:39-42, IRL Press (1989)
	AT	8	Kajii, H., et al., "Fluorescence Study on the Interaction of Salicylate with Rat Small Intestinal Epithelial Cells: Possible Mechanism for the Promoting Effects of Salicylate on Drug Absorption <u>In Vivo</u> ," <i>Life Sci.</i> 37:523-530, Pergamon Press Ltd. (1985).

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	AO						Yes No
	AP						Yes No

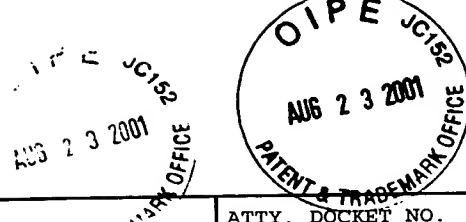
## OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	AR	2	Kamagami, S., et al., "Penetration enhancement across a model membrane by liposomally entrapped drugs using N,N'-diacylcystine as a bilayer lipid," Chem. Abstracts 114:457 Abstract No. 214316d, American Chemical Society (1991).
	AS	2	Kidron, M., et al., "The Absorption of Insulin from Various Regions of the Rat Intestine," Life Sci. 31:2837-2841, Pergamon Press Ltd. (1982).
	AT	2	Kiwada, H., et al., "Application of synthetic liposomes based on acyl amino acids or acyl peptides as drug carriers. I. Their preparation and transport of glutathione into the liver," Chem. Abstracts 107: Abstract No. 183493h, American Chemical Society (1987).

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FORM PTO-1449  <u>INFORMATION DISCLOSURE STATEMENT</u>	ATTY. DOCKET NO. 1696.0020008/RWE/BEC		APPLICATION NO. 09/815,113
	APPLICANTS Shen et al.		
	FILING DATE May 1, 2001		GROUP 1646

U.S. PATENT DOCUMENTS							
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	AL						Yes No
	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)			
AR	10	Landolph, J.R., "Chemical Transformation in C3H 10T½ Cl 8 Mouse Embryo Fibroblasts: Historical Background, Assessment of the Transformation Assay, and Evolution and Optimization of the Transformation Assay Protocol," In: <i>Transformation Assay of Established Cell Lines: Mechanisms and Application</i> , T. Kakunaga and H. Yamasaki, eds. IARC Scientific Publications 67:185-203, International Agency for Research on Cancer (1985).	
AS	10	Lee, V.H.L., "Enzymatic Barriers to Peptide and Protein Absorption," <i>Crit. Rev. Ther. Drug Carrier Syst.</i> 5:69-97, CRC Press, Inc. (1988).	
AT	10	Lee, V.H.L., et al., "Mucosal Penetration Enhancers for Facilitation of Peptide and Protein Drug Absorption," <i>Crit. Rev. Ther. Drug Carrier Syst.</i> 8:91-192, CRC Press, Inc. (1991).	

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INFORMATION DISCLOSURE STATEMENT

ATTY. DOCKET NO.  
1696.0020008/RWE/BEC

APPLICATION NO.  
09/845,153

APPLICANTS  
Shen et al.

FILING DATE  
May 1, 2001

GROUP  
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**U.S. PATENT DOCUMENTS**

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	AN						Yes No
	AO						Yes No
	AP						Yes No

**OTHER (Including Author, Title, Date, Pertinent Pages, etc.)**

	AR	<u>11</u>	Letsinger, R.L., et al., "Cholesteryl-conjugated oligonucleotides: Synthesis, properties, and activity as inhibitors of replication of human immunodeficiency virus in cell culture," <i>Proc. Natl. Acad. Sci. USA</i> 86:6553-6556, National Academy of Sciences (1989).
	AS	<u>11</u>	Lowry, O.H., et al., "Protein Measurement with the Folin Phenol Reagent," <i>J. Biol. Chem.</i> 193:265-275, American Society of Biological Chemists, Inc. (1951).
	AT	<u>11</u>	Martins, M.B.F., et al., "Acylation of L-asparaginase with total retention of enzymatic activity," <i>Biochimie</i> 72:671-675, Elsevier Science (1990).

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## INFORMATION DISCLOSURE STATEMENT

 ATTY. DOCKET NO. 1696.0020008/RWE/EEC  
 APPLICATION NO. 09/045,153

 APPLICANTS  
 Shen et al.

 FILING DATE  
 May 1, 2001

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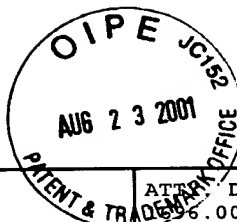
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AR	<u>12</u>	McConahey, P.J., and Dixon, F.J., "Radioiodination of Proteins by the Use of the Chloramine-T Method," <i>Meth. Enzymol.</i> 70:210-213, Academic Press, Inc. (1980).
AS	<u>12</u>	Mostov, K.E., and Simister, N.E., "Transcytosis," <i>Cell</i> 43:389-390, Massachusetts Institute of Technology (1985).
AT	<u>12</u>	Müller, C.E., et al., "Lipophilic disulfide prodrugs-syntheses and disulfide bond cleavage," <i>Int. J. Pharm.</i> 57:41-47, Elsevier Science Publishers B.V. (1989).

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INFORMATION DISCLOSURE STATEMENT

ATTORNEY DOCKET NO. 109/845,153  
APPLICATION NO. 09/845,153

APPLICANTS  
Shen et al.

FILING DATE  
May 1, 2001

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**U.S. PATENT DOCUMENTS**

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	AO						Yes No
	AP						Yes No

**OTHER (Including Author, Title, Date, Pertinent Pages, etc.)**

	AR	<u>13</u>	Muranishi, S., et al., "Lipophilic Peptides: Synthesis of Lauroyl Thyrotropin-Releasing Hormone and Its Biological Activity," <i>Pharm. Res.</i> 8:649-652, Plenum Press(1991).
	AS	<u>13</u>	Okahata, T, and Seki, T., "Functional capsule membranes. 10. pH-sensitive capsule membranes. Reversible permeability control from the dissociative bilayer-coated capsule membrane by an ambient pH change," <i>Chem. Abstracts</i> 102:391 Abstract No. 12733d, American Chemical Society (1985).
	AT	<u>13</u>	Reznikoff, C.A., et al., "Establishment and Characterization of a Cloned Line of C3H Mouse Embryo Cells Sensitive to Postconfluence Inhibition of Division," <i>Cancer Res.</i> 33:3231-3238, American Association for Cancer Research (1973).

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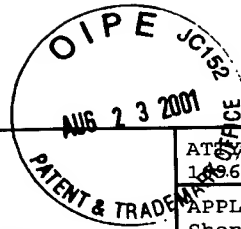
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## INFORMATION DISCLOSURE STATEMENT

 ATTY. DOCKET NO.  
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 APPLICATION NO.  
 09/845,153

 APPLICANTS  
 Shen et al.

 FILING DATE  
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## OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

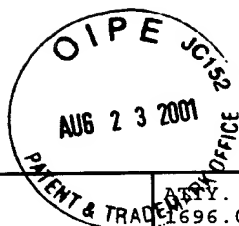
AR	14	Reznikoff, C.A., et al., "Quantitative and Qualitative Studies of Chemical Transformation of Cloned C3H Mouse Embryo Cells Sensitive to Postconfluence Inhibition of Cell Division," <i>Cancer Res.</i> 33:3239-3249, American Association for Cancer Research (1973).
AS	14	Robert, S., et al., "Fatty Acid Acylation of RNase A using Reversed Micelles as Microreactors," <i>Biochem. Biophys. Res. Commun.</i> 196:447-454, Academic Press, Inc. (1993).
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INFORMATION DISCLOSURE STATEMENT
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 DOKY. DOCKET NO.  
 1696.0020008/RWE/BEC

 APPLICATION NO.  
 09/845,153

 APPLICANTS  
 Shen et al.

 FILING DATE  
 May 1, 2001

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 1646

## U.S. PATENT DOCUMENTS

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	AN						Yes No
	AO						Yes No
	AP						Yes No

## OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

AR	<u>15</u>	Shen, W.-C., and Ryser, H.P.-J., "Poly(L-lysine) has different membrane transport and drug-carrier properties when complexed with heparin," <i>Proc. Natl. Acad. Sci. USA</i> 78:7589-7593, National Academy of Sciences (1981).
AS	<u>15</u>	Shen, W.-C., et al., "Enhancement of polypeptide and protein absorption by macromolecular carriers via endocytosis and transcytosis," <i>Adv. Drug Delivery Rev.</i> 8:93-113, Elsevier Science Publishers B.V. (1992)
AT	<u>15</u>	Smith, P.L., et al., "Oral absorption of peptides and proteins," <i>Adv. Drug Delivery Rev.</i> 8:253-290, Elsevier Science Publishers B.V. (1992).

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FORM PTO-1449  <u>INFORMATION DISCLOSURE STATEMENT</u>	ATTORNEY NO. 1696.0020008/RWE/BEC	APPLICATION NO. 19845,153
APPLICANTS Shen et al.		
FILING DATE May 1, 2001	GROUP 1646	

U.S. PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
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	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)			
	AR	<u>16</u>	Takaori, K., et al., "The Transport of an Intact Oligopeptide Across Adult Mammalian Jejunum," <i>Biochem. Biophys. Res. Comm.</i> 137:682-687, Academic Press, Inc. (1986).
	AS	<u>16</u>	Taub, M.E., and Shen, W.-C., "Polarity in the Transcytotic Processing of Apical and Basal Membrane-Bound Peroxidase-Polylysine Conjugates in MDCK Cells," <i>J. Cell. Phys.</i> 150:283-290, Wiley-Liss, Inc. (1992).
	AT	<u>16</u>	Toth, I., "A Novel Chemical Approach to Drug Delivery: Lipidic Amino Acid Conjugates," <i>J. Drug Targeting</i> 2:217-239, Harwood Academic Publishers GmbH (1994).

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## INFORMATION DISCLOSURE STATEMENT

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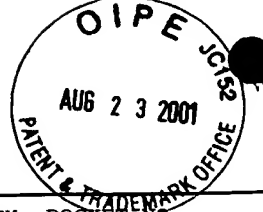
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	AL						Yes No
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	AN						Yes No
	AO						Yes No
	AP						Yes No

	AR	<u>17</u>	Ubuka, T. et al., "Synthesis of disulfides related to glutathione and their detection in tissue," ( <i>Ganryu Aminosan</i> ) <i>Sulfur Amino Acids</i> 8:153-157, Ganryu Aminosan Kenkyukai (1985). [Article in Japanese]
	AS	<u>17</u>	Ubuka, T. et al., "Synthesis of disulfides related to glutathione and their detection in tissue," <i>Chem. Abstracts</i> 106:728, Abstract No. 156843v, American Chemical Society (1987).
	AT	<u>17</u>	Uchimi, I. et al., "Glutathione derivatives," <i>Chem. Abstracts</i> 73:359, Abstract No. 56440t, American Chemical Society (1970).

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FORM PTO-1449  <u>INFORMATION DISCLOSURE STATEMENT</u>	ATTY. DOCKET NO. 1696.0020008/RWE/BEC	APPLICATION NO. 09/845,153
	APPLICANTS Shen et al.	
	FILING DATE May 1, 2001	GROUP 1646

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	AL						Yes No
	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	AR	<u>18</u>	Uchimi, I. et al., "Glutathione derivatives," <i>Chem. Abstracts</i> 74:408, Abstract No. 54179m, American Chemical Society (1971).
	AS	<u>18</u>	Větvička, V., and Fornůsek, L., "Limitations Of Transmembrane Transport In Drug Delivery," <i>Crit. Rev. Ther. Drug Carrier Syst.</i> 5:141-170, CRC Press, Inc. (1988).
	AT	<u>18</u>	Vitetta, E., "Immunotoxins: New Therapeutic Reagents for Autoimmunity, Cancer, and AIDS," <i>J. Clin. Immunol.</i> 10:15S-18S, Plenum Press (1990).

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FORM PTO-1449  <u>INFORMATION DISCLOSURE STATEMENT</u>	ATTY. DOCKET NO. 1696.0020008/RWE/BEC	APPLICATION NO. 09/845,753
	APPLICANTS Shen et al.	
	FILING DATE May 1, 2001	GROUP 1646

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	AM						Yes No
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	AO						Yes No
	AP						Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)			
	AR	<u>19</u>	Wan, J., et al., "Transcellular Processing of Disulfide-and Thioether-Linked Peroxidase-Polylysine Conjugates in Cultured MDCK Epithelial Cells," <i>J. Cell. Phys.</i> 145:9-15, Wiley-Liss, Inc. (1990).
	AS	<u>19</u>	Wan, J., and Shen, W.-C., "Brefeldin A and Monensin Enhance Transferrin Receptor-mediated Protein Transport across Epithelial Cells," <i>Pharm. Res.</i> 8:S-4, Plenum Press (1991).
	AT	<u>19</u>	Wan, J., et al., "Brefeldin A Enhances Receptor-mediated Transcytosis of Transferrin in Filter-grown Madin-Darby Canine Kidney Cells," <i>J. Biol. Chem.</i> 267:13446-13450, American Society for Biochemistry and Molecular Biology, Inc. (1992).

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FORM PTO-1449  <u>INFORMATION DISCLOSURE STATEMENT</u>	ATTY. DOCKET NO. 1696.0020008/RWE/BEC	APPLICATION NO. 09/845,153
	APPLICANTS Shen et al.	
	FILING DATE May 1, 2001	GROUP 1646

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	AN						Yes No
	AO						Yes No
	AP						Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)			
	AR	<u>20</u>	Yavelow, J., et al., "Bowman-Birk Soybean Protease Inhibitor as an Anticarcinogen," <i>Cancer Res.</i> 43:2454s-2459s, American Association for Cancer Research (1983).
	AS	<u>20</u>	Yodoya, E., et al., "Enhanced Permeability of Tetragastrin across the Rat Intestinal Membrane and Its Reduced Degradation by Acylation with Various Fatty Acids," <i>J. Pharm. Ex. Ther.</i> 271:1509-1513, American Society for Pharmacology and Experimental Therapeutics (1994).
	AT	<u>20</u>	Yoshikawa, H., et al., "Potentiation of Enteral Absorption of Human Interferon Alpha and Selective Transfer into Lymphatics in Rats," <i>Pharm. Res.</i> 5:249-250, Thieme Inc., (1985).

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	APPLICANTS Shen et al.	
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AR	<u>21</u>	"Protein," In: Webster's Third New International Dictionary, Unabridged, P.B. Gove, PhD., ed. G. & C. Merriam Co. Springfield, Massachusetts, USA. p. 1823 (1971).
AS	<u>21</u>	Patent Abstract of Japanese Publication No. 63246382, obtained from the European Patent Office.
AT	<u>21</u>	Supplementary European Search Report of EP 96 90 3690, mailed March 5, 1998.

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FORM PTO-1449  <u>INFORMATION DISCLOSURE STATEMENT</u>	ATTY. DOCKET NO. 1696.0020008/RWE/BEC	APPLICATION NO. 09/845,153
	APPLICANTS Shen et al.	
	FILING DATE May 1, 2001	GROUP 1626

U.S. PATENT DOCUMENTS

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